



university of  
 groningen

faculty of spatial sciences

# BOOK OF ABSTRACTS

Graduate Research Day – June 23th 2022

During the Graduate Research Day videos and pictures will be made for our new promotional movie.  
If you have any objections, please send an e-mail to the organization ([grd@rug.nl](mailto:grd@rug.nl)).

# Programme

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12:00 - 12:30	Walk-in with coffee/tea and a small lunch ( <i>Plaza</i> )
12:30 - 12:40	Welcome and opening by <b>dr. Gunnar Mallon</b> ( <i>Blauwe Zaal</i> )
12:40 - 13:10	Keynotes by <b>Sorcha MacIntyre</b> and <b>Jesse Burgler</b>
13:15 - 14:30	Thematic Presentation Sessions – round 1: <ol style="list-style-type: none"><li><b>5412.0025: Healthy Ageing</b> Gwendolyn Meuleman / Coen Houthoof / Elise van Muiswinkel / Justine van der Feen / Peter Leliveld</li><li><b>5412.0028: Childhood</b> Eriko Cekrezi / Evelien Mulder / Dorien de Jong / Yves Koekkoek</li><li><b>5412.0031: Water Management</b> Niek Eghuizen / Philipp Holzer / Nils Schelling / Charlotte Wilm / Pia Bollingerfehr</li><li><b>5412.0035: The Cities of the Future</b> Nils Bruinsma / Filip Jankowski / Niels Kück / Wouter Johannes / Sacha Verhulst</li><li><b>5412.0039: Local Communities</b> Helmer Hoenink / Louis-Thomas Kelly / Patrick Rekers / Thomas van Zeewijk Vink / Irina Krottje</li><li><b>5412.0040: Migration</b> Jaap Bouwman / Leonie Diffené / Martin Bieleman / Youri Meerstra</li><li><b>5419.0008: Dynamics in the Energy Transition</b> Charlie Walker Clarke / Christine Olsman / Sanne van Delden / Ilse van Dijk</li><li><b>5419.0013: Sustainable Housing</b> Friso van der Mark / Danique van Beelen / Mats Wouters / Demetrios Charalambides / Kaj Wentink</li><li><b>5419.0119: Housing &amp; Property Values 1</b> David Altenburg / Jos Koster / Philibert Weenink / Hendrik Willem Ophoff / Lars Groenewold</li></ol>
14:30 - 15:15	Poster Presentations + break with coffee/tea ( <i>Plaza</i> )
15:15 - 16:30	Thematic Presentation Sessions – round 2: <ol style="list-style-type: none"><li><b>5412.0025: After the Car</b> Thijs Oost / Nikki Sweere / Jaimy Post / Nigel Onwuachu</li><li><b>5412.0028: On the Move</b> Linus Piesch / Laura Fransen / Milan Noordveld</li><li><b>5412.0031: Generations YZ</b> Tom Hermes / Chang You / Jonas Kemmerling</li><li><b>5412.0035: Spatial Inequalities</b> Bas Koopman / Eleonore Witschaß / Genghao Zhang / Mi Hyun Seong</li><li><b>5412.0039: Neighbourhoods / Local Planning</b> Benolia Adjei-Cudjoe / Gijs Wesselo / Martijn Ras / Jasmijn Tiemersma</li><li><b>5412.0040: Tourism</b> Mark Pasma / Alizé Kock / Yuxuan Zhu / Spyridon Melissourgos</li><li><b>5419.0008: Benefiting of the Energy Transition?</b> Bas Donkers / Anton Korpela / Daan Schipper / Jort de Vries</li><li><b>5419.0013: Property Markets</b> Mohammad Hassan Taheri Motlagh / Geoffrey Penders / Nynke Hoomans / Malou van de Klok / David Valens</li><li><b>5419.0119: Housing &amp; Property Values 2</b> Pieter Reitsma / Martine Verwijs / Shawn Kuijpers / Sven Bouwmeester Bram Treffers</li></ol>
16:45 - 17:00	Keynote by <b>Maria Louise Pohl</b> ( <i>Blauwe Zaal</i> )
17:00 - 17:15	Award Ceremony and Closing by <b>dr. Gunnar Mallon</b> ( <i>Blauwe Zaal</i> )
17:15 - 18:00	Festive Closure with drinks and snacks ( <i>Plaza</i> )

# Keynotes

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## **Sorcha MacIntyre**

### *Her 20-minute city: towards gender-inclusiveness in an emerging planning concept.*

Post-pandemic planners have realised the crucial role of local neighbourhoods in providing amenities. Edinburgh has initiated a 20-minute concept within their urban planning agenda. This research focuses on the residents of Corstorphine, which a recognised potential future 20-minute walking and cycling neighbourhood. This research explores the priorities and expectations of women utilising feminist participatory action research. Key results indicate that definitions of safety and consideration of marginalised groups are key divergences from the 20-minute city plan whereby key convergences lie within creating more effective transport links and the promotion of mixed use amenities.

## **Jesse Burgler**

### *Regional Energy Strategies for Local Energy Initiatives.*

In my master thesis, I investigate how the Dutch RES (Regional Energy Strategy) contributes to the emergence and success of local energy initiatives. I will investigate how these initiatives can be stimulated through governance instruments provided by the RES, and whether decentralization to sub-national governments contributes to the emergence and success of LLCEIS. To do this, I will have interviews with experts involved in both the RES and Local energy Initiatives. Furthermore, RES-related policy documents will be analysed.

## **Maria Louisa Pohl**

### *The Effect of Rural-to-Urban Migration on Fertility Trends in Ethiopia and Nigeria.*

Most areas around the globe have experienced a significant fertility decline as part of their demographic transitions; however, Sub-Saharan Africa continues to stand out as having high fertility intentions and birth rates. Moreover, little is known about the links between socio-economic and demographic processes in this region. Therefore, this thesis explores the impact of internal migration on fertility trends in two Sub-Saharan countries, Nigeria and Ethiopia.

# Thematic Presentation Sessions - round 1

## 13:15 – 14:30 hours

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### 1. Healthy Ageing - Moderated by dr. Adrien Remund Room 5412.0025

#### **Gwendolyn Meuleman**

##### *Healthy housing: the effects on life satisfaction of elderly in the Netherlands.*

In the Netherlands, the share of elderly in the population grows, households become smaller, people live longer and elderly stay in their big family homes because of the lack of suitable alternatives. The pressure on the housing market and the health care sector is growing. This thesis analyses the relationship between the current living situation of elderly and their overall life satisfaction. The models show a positive effect for higher subjective health perceptions, feeling at home in a neighbourhood, and not living alone in a household. The desire to move shows a negative effect.

#### **Coen Houthoofd**

##### *The perceived mobility of older adults in Groningen.*

A high degree of mobility is associated with a higher degree of well-being. Older adults often face a declining mobility and thus are at risk of a lower well-being. The province of Groningen faces an aging population which provides local policymakers with new challenges to ensure a sufficient level of mobility among older adults. This thesis will make use of a quantitative approach to study which factors influence the self-perceived mobility of older adults in the province of Groningen. These factors can be categorized into people-based characteristics and place-based characteristics.

#### **Elise van Muiswinkel**

##### *Meaning in Life - A Demographic Analysis of Meaning in Life among Older Adults in the Netherlands.*

This study looked at the perception of meaning in life among older adults (65-plus) in the Netherlands. Meaning in life concerned two lines: the extent to which older adults consider their life worth living and the extent to which older adults have a feeling of contribution to society. Meaning in life was researched for education and income (resources) and demographic characteristics, such as gender and marital status. Besides, the association between meaning in life and social contacts, general health, religion, and volunteer work was investigated. The study used quantitative data collected by Statistics Netherlands with the Social Cohesion and Well-being Survey 1 in 2020.

#### **Justine van der Feen**

##### *Michi-Noeki's as the answer for ageing in place?*

The aim of this research is to examine whether older adults in the Oosterparkwijk are ageing in place and how loneliness, mobility and social capital influence this. Throughout the province of Groningen, there is an increase in the number of older adults. It is therefore interesting to examine whether this growing group is ageing in place or not.

**Peter Leliveld***Accessibility of the elderly in the province of Groningen.*

The north of the Netherlands is facing an increasingly ageing population. The ageing population often lives in rural areas with a low population density. This creates increasing challenges for mobility services in the province of Groningen. ). This research used both quantitative and qualitative data to get answers to the research question: What can be done in the province of Groningen to keep the elderly participating in tomorrow's society in terms of accessibility? This research in the end concluded that much needs to be done still to keep the network economically sustainable.

## **2. Childhood - Moderated by Lara Bister Room 5412.0028**

**Eriko Cekrezi***Parental perception of street safety and children's wellbeing: A comparative research between Woonerf and High-Traffic residential streets in Groningen.*

Woonerf is a concept introduced to decrease the car traffic levels in residential streets by establishing spatial interventions. However, little research has been done on the social effects of the Woonerf concept on its residents. The imperceptible advantages of Woonerf streets related to the societal effects are explored. Results indicate that parents living in Woonerf streets are less concerned for their children's safety when they are unsupervised outdoors. This has an effect on the promotion of children's autonomy and wellbeing in Woonerf streets suggesting that they live a healthier life.

**Evelien Mulder***Strategies to combat childhood overweight and obesity: a mixed method approach.*

The increasing number of childhood overweight and obesity is a serious global health challenge. In the Netherlands, municipalities are responsible for tackling overweight and obesity resulting in different and diverse programs within the country. Interviews with 18 policy-makers on the strategic level were conducted in order to get an overview of how municipalities decide on their strategy to combat childhood overweight and obesity. Integrity and the involvement of skilled, intrinsically motivated people seemed to be important. To achieve this, it is important to set a long-term vision.

**Dorien de Jong***Postnatal Care Workers' Personal and Cultural Values and Beliefs about Breastfeeding Support: A Qualitative Study in the Netherlands.*

In the Netherlands, 22% of women who initiate breastfeeding (BF) stop in the first month after birth. BF cessation is influenced by professional support. Women in the Netherlands experience great differences in professional BF support. Previous studies did not investigate underlying mechanisms that help understand these differences. Using Cultural Schema Theory, I aim to explore what motivates postnatal care workers to provide support with BF. I am currently conducting semi-structured in-depth interviews with maternity care assistants, nurses, and physicians working in well-baby clinics.

**Yves Koekkoek***Growing demand for childcare; the effect of childcare centres on housing prices in England.*

In English society, an increase in women's labour participation has created a growing demand for childcare, besides school. This research analyses if its growing demand effects housing

prices. With the use of hedonic price modelling, this research finds that the spatial distance between childcare centers and houses influences the price of a sold house. The strongest effect was found in a distance between the 100 to 250-metre distances of childcare centers, therefore not in the nearest proximity of a childcare provider and thus proving a negative externality of childcare providers.

### **3. Water Management - Moderated by Eilana Maring (Noorderzijlvest) Room 5412.0031**

#### **Niek Eghuizen**

##### *The effect of flooding risk on housing prices in The Netherlands.*

Climate change is a growing problem and has major effects on the living environment of the world population. The topic of this research is to investigate if the flooding risk affects housing prices in The Netherlands. Different literature shows that housing prices drop in areas that have a high probability of flooding. This expectation is tested by performing an empirical analysis of two regions in The Netherlands. With this consideration, results could help local governments in making their choice for assigning construction sites and help appraisers to better value residential properties.

#### **Philipp Holzer**

##### *Soaking up nature based benefits in sustainable urban stormwater management.*

In western cities, the traditional response to these problems has been grey infrastructure, such as piped drainage systems. However, due to climate change and soil sealing, these drainage infrastructures frequently lack the capacity to keep up with ongoing urbanisation and the increasing velocity of stormwater, resulting in greater run-off and a heightened danger of urban flooding. Nature-based solutions, as opposed to traditional grey infrastructure and hard engineering, are an alternative approach to dealing with the consequences of climate change

#### **Nils Schelling**

##### *Dealing with the increasing need of flood resilience in urban areas - A case study in the cities of Bremen and Hamburg of operationalising flood-resilience-design strategies.*

This thesis deals with the term "flood-resilience" and establish a link between theoretical concepts and design-implementations in urban areas. It analyses the cities of Bremen/Hamburg and different design-strategies that are implementing concerning their new agenda of a 'Flood-Risk-Management'-Approach. Thereby, data collection (literature review/urban planning documents and interviews) and analysis is based on two levels. Firstly, a holistic overview of the general flood-risk-management plans and secondly, a detailed view on specific projects/infrastructures within their urban environment.

#### **Charlotte Wilm**

##### *The impact of flood risk on residential real estate property value: A case study on how flood risk in flood-endangered Kingston-upon-Hull affects real estate property value.*

This research analyzes the impact of flood risk on property prices in Hull, UK. Due to global warming, natural hazards increasingly pose a global threat. Understanding the impact of hazards gained importance to adjust prevention and urban planning for infrastructure and real estate. With a hedonic pricing model, I analyze the effect of the Jun2007 and Dec2013 floods on property prices. I find evidence that the two floods have a significant positive effect on sales prices. I add to literature advancing findings on the impact of natural hazards, so far characterized by conflicting results.

**Pia Bollingerfehr**

*Towards rain-proof cities: Overcoming the barriers of blue-green infrastructure implementation.*

Urbanization and the increasing frequency and intensity of extreme weather events challenge the planning departments of many municipalities. Blue green infrastructure (BGI) as a means for building pluvial flood resilience and nudging a transition towards integrated (storm)water management is proposed as an effective climate adaptation measure. The benefits for and barriers of its implementation are investigated in this research. With the use of a mixed method approach, the question of how to scale up the use of BGI in mid-sized cities in Germany is answered.

#### **4. The Cities of the Future – Moderated by dr. Christian Lamker Room 5412.0035**

**Nils Bruinsma**

*Barriers to the integration of High Speed Rail in aviation practices: a transition perspective to air-rail integration at the Amsterdam-Paris corridor.*

Aviation creates many negative environmental impacts. Using High Speed Rail to substitute short haul flights connecting passengers to other flights at hub airports can reduce negative impacts from sustainability. However, despite potential benefits, the air-rail product is still a niche, unable to change the airlines' dominant practices. This research takes a transition perspective to why the air-rail product is not gaining traction and whether and how the barriers to air-rail integration can be overcome.

**Filip Jankowski**

*Reconstruction of Cities and its effects on Present day, on the example of Berlin and Warsaw.*

Due to heavy damage, that both Berlin and Warsaw suffered during the Second World War, much needed reconstruction and redevelopment of both urban areas was needed. On the examples of selected locations from both cities the research takes a closer look at how successful was this recovery from the most destructive event in Europe. Furthermore, this study examines how both capitals transform and how solutions implemented in the past influence current housing and quality of life of local residents. This research uses a mix method to gather data to obtain a more holistic perspective on the topic.

**Niels Kück**

*Green growth versus post-growth ideas: A comparative analysis of policy discourses in the housing and mobility sectors of the cities of Münster and Freiburg, Germany.*

The cities Münster and Freiburg face the important task to become climate neutral. Green growth as a prominent discourse in planning aims at decoupling environmental impacts from resource use and emissions but research argues this to be impossible fast enough. In contrast, the post-growth discourse argues for the need of large scale societal change. Conducting a critical discourse analysis, this research looks at housing and mobility discourses. Findings suggest an interplay between green growth and post-growth oriented policy discourses in housing and mobility in both cities.

### **Wouter Johannes**

#### *Rapid electricity- and data infrastructure cannot function efficiently with regional planning - Centralize Hyperscale Data Centre Planning.*

Developments around hyperscale data centres are currently highly relevant. Could centralized planning be the solution to reduce the uncertainty for electricity usage and make the Netherlands a frontrunner in a digitizing era? With the research question: "Under what conditions is centralized planning feasible to combine the rapidly increasing data infrastructure with the rapidly increasing energy infrastructure in the Netherlands?" A ministry of Digital Affairs could be responsible for appointing hyperscale data centre locations and be the solution for supporting the digitizing Netherlands

### **Sacha Verhulst**

#### *Sustainable Topcorridors - institutional arrangements for sustainable corridor development.*

Developing a sustainable freight transport system remains a big challenge for the Dutch Topcorridor. A sustainable and integrated transport system is crucial for a well-functioning society, environment and economy. What makes the process towards sustainable corridor development challenging are the multi-dimensional characteristics of corridor development. Thus, there is a need for an aligned and coordinated integrated approach taking both the corridor and its nodes into account. This study aims to provide insight in institutional arrangements supporting sustainable development of the corridor.

## **5. Local Communities – Moderated by Jesse Wermelink (Twynstra Gudde) Room 5412.0039**

### **Helmer Hoenink**

#### *Renewing community support.*

Currently, plans of the Dutch governments regarding the energy transition are being boo-ed at by the local communities and sometimes to such an extent that the plans are being cancelled. The main question is: how to enlarge the support base from the communities so the energy transition can continue in a more community supported way. This is being researched by doing a case study on three community initiatives in the energy transition, which all receive different levels of support from their municipalities to see what instruments work best to create more support and integrate this into policy.

### **Louis-Thomas Kelly**

#### *Planning to Remember: Determining contested public memory at Amsterdam's Indië-Nederland Monument and reflecting on counter-memorial spatial intervention.*

The contested Indië-Nederland Monument, Amsterdam poses a problem for planners aiming to ease social tensions through spatial intervention. This account of counter-memorialization first confides in semiotics to understand the site's significance. Then, pivoting towards a proposal for participatory practices, this study determines a remedy for memorial tension in critical artistic practices. Making space for potential participants to act critically, this proposed, participatory and art-based method of spatial intervention would place the capacity for change in the hands of participants.

### **Patrick Rekers**

#### *The sale of social housing and its influence on the social compositions of neighbourhoods.*

The sale of social housing is the fastest way for housing associations to stay financially self-sufficient. It is therefore likely that the sale of social housing could lead to segregation of

certain types of households in certain neighbourhoods, this is the opposite effect that should be created according to policymakers and housing associations. By examining the strategies and sales of housing associations in the province of Groningen, it can be determined if the sales affected the social compositions of neighbourhoods. The result may influence the practices of planners and policymakers.

**Thomas van Zeewijk Vink**

*Blueprint planning in neighbourhood renewal.*

The Netherlands has a strong planning tradition with top-down blueprint plans that spurred great changes. Think of the Flevopolder or the large growth plans. This planning style has been in decline the past decades: participation and bottom-up processes have become more important. Especially in urban neighbourhood renewal. But participation has its drawbacks, like representativeness and conservative outcomes. This study looks into the ways in which blueprint planning, experts making a spatial vision and top-down implementation, can improve planning processes and outcomes in neighbourhoods.

**Irina Krottje**

*Working title: the influence of one living environment in the perceived health.*

Ever since the rise of non-communicable diseases, more research has been devoted to factors influencing this rise. Central in this research is the self-reported health rate, that is affected by the presence of diseases as well as, for example, one's living environment. First a spatial regression was performed to research factors influencing self-reported health rates. Thereafter, a site analysis was performed in poorly performing neighbourhoods based on this analysis. The site analysis provided recommendations that were in line with policy plans of the municipality of Groningen.

**6. Migration – Moderated by prof. dr. Tialda Haartsen  
Room 5412.0040**

**Jaap Bouwman**

*Social Integration of International Migrants in Contested Space: Gentrification in Amsterdam-Noord.*

Using the pro-gentrification redevelopment of Amsterdam-Noord as a case study, this paper investigates the immigration of international migrants into gentrifying neighbourhoods, focussing on the process of social integration and the consequences for the community. Using theory and a qualitative research approach in the form of in-depth interviews, this paper aims to answer the following research question: How does gentrification affect the social integration of international migrants in Amsterdam-Noord? As of yet, no results have been obtained through the interviews.

**Leonie Diffené**

*The transition into motherhood from a life-course perspective: A comparison across first-generation immigrants in Germany.*

German research has extensively studied the fertility timing of immigrants from former guest-worker countries. The contribution of this study is to compare first-generation immigrant women who have also immigrated from other regions of origin since the 1990s regarding their transition into motherhood in Germany. Event-history models revealed that migrants from Central and Eastern Europe and non-European countries have higher first-birth risks than

Western European migrants. Mediation analyses suggested that their higher birth risks are due to lower levels of education and ages at migration.

#### **Martin Bieleman**

*Immigration and the Geography of Discontent: The Role of Immigration in Far-right voting across EU-regions.*

The recently intensively studied geography of antisystem voting validated the relevance of both contextual and compositional effects. This study adds to this literature by considering immigration-related economic and socio-cultural concerns, which proposedly increase far-right electoral support across EU regions. Using the 8<sup>th</sup> edition of ESS in a two-level multilevel logistic model the author reaffirms earlier findings of the far-right electoral literature: sociocultural compositional concerns are more important than economic concerns when it relates to individuals' far-right voting decisions.

#### **Youri Meerstra**

*The Frisian brain drain: Return and out-migration in rural areas of Fryslân, and the role of place attachment.*

Rural areas in Fryslân are experiencing the out-migration of (highly ambitious/educated) youth towards cities, leading to a shrinking population and economic decline. However, what drives the youth to leave? And what would help to stimulate their return? This thesis aims to study the motivations of these youth by studying literature and interviewing youth, to answer the question: what would help in combating out-migration, what would stimulate return migration and what would the role of place attachment be?

## **7. Dynamics in the Energy Transition - Moderated by dr. Annet Kempenaar Room 5419.0008**

#### **Charlie Walker Clarke**

*Democratising the energy transition: A case study into the transformative power of renewable energy cooperatives in the United Kingdom.*

Renewable energy cooperatives aim to promote community-based, democratic practices in the energy sector as well as contribute to net zero carbon emission goals through the uptake of renewable energy projects. This research investigates the role energy cooperatives play in stimulating 'energy democracy' within communities as well as having a transitional impact on the energy sector as a whole. Building on the Multi-level perspective in transition theory, case studies in the UK will be used to better understand the roles energy cooperatives have within the energy transition.

#### **Christine Olsman**

*How a citizen initiative takes part in transforming how conflict is handled within the energy landscape.*

The aim of this study is to find out whether existing location theories are applicable to virtual land. The following research question was formulated for this purpose: "Which factors influence the value of digital land in the metaverse?" In order to answer the research question, a qualitative content analysis was carried out on the basis of tech media.

**Sanne van Delden**

*In our back yard! Citizen perspectives on local renewable energy developments in the Oosterpoort.*

There is often wide public support for sustainable energy developments, yet local projects do often run into opposition. In the past, this difference has been dismissed with the 'NIMBY' assumption. This study goes beyond this assumption and aims to provide insights into why people support or oppose local sustainable energy developments, by doing a case study of the Oosterpoort neighbourhood. Perspectives of citizens are uncovered with walk-along interviews of which the results are in progress.

**Ilse van Dijk**

*Fanoe: changing climate, changing culture?*

Climate change effects will affect us in many ways, they will also have consequences for our cultures and ways of life. However, there is very little know about these cultural consequences. My thesis research is centered around a case study of the Danish Wadden island Fanoe, in particular the experiences of its' residents and their expectations for the future of the community. By focusing on the spatial dimension of culture, it can be linked to climate change effects, concretizing two abstract topics, and facilitating a discussion of the cultural consequences of climate change and the future.

## **8. Sustainable Housing – Moderated by dr. Mark van Duijn Room 5419.0013**

**Friso van der Mark**

*The effect of the Dutch energy efficiency policy on office transaction values.*

The Dutch government transformed their climate ambitions into proposed targets to strive for a climate-neutral built environment in 2050. The first deadline is the upcoming obligatory deadline for offices to have at least an EPC C label. This study looks at the consequences the upcoming deadline has on the market dynamics by applying an OLS multiple regression analysis on office investment transactions, that took place between 2015 and Q1 2022. Currently, I am working on the empirical analysis. Nevertheless, I expect some interesting results.

**Danique van Beelen**

*Valuable comfort and energy efficiency in housing: A quantitative analysis on the monetary and non-monetary valuation of energy efficient attributes in Dutch residential properties.*

More insights into the comparison of monetary and non-monetary valuation of energy efficiency in housing would help to verify whether energy efficient attributes induce a premium on the property price, caused by willingness to pay (WTP), and increased residential satisfaction, leading to sufficient WTP. This study compares how property prices and residential satisfaction were affected by energy efficient attributes. The findings suggests that WTP generated by residential satisfaction does not to induce the ability to charge premiums for energy efficient attributes.

**Mats Wouters**

*The association between energy labels and time on the housing market in Limburg, Belgium.*

In this thesis, research has been done, whether there is a linear relationship between energy labels of houses and how many days the houses are for sale. Energy labels are becoming more important every year and have their impact on the housing market. You could say that a house

with a good energy label would be sold faster than houses with a bad energy label. This is investigated in my thesis.

#### **Demetrios Charalambides**

*How are floating houses priced compared to nearby houses on land? Evidence from Portland, USA.*

This study examines price differences amongst comparable floating and nearby on-land housing in Portland, USA. Understanding if unsinkable floating houses are a viable residential alternative is interesting for the real estate industry, considering zoning constraints, the insufficient housing construction and the existing flood-risk in Portland. Employing a hedonic regression, we find that floating houses are associated with relatively lower sales prices on average, ceteris paribus. Future research may examine price differences between the two types in areas of greater housing consumption risk.

#### **Kaj Wentink**

*The relationship between green certification and market rents for Dutch offices.*

What is the relationship between green certification and the market rent for Dutch office real estate assets? The main findings state that green certification results in a green rental premium of 14.9% compared to non-green certified office buildings. This increases to 17.2% for a core location and drops to 11.4% for a non-core location. Furthermore, no interaction effect between green certification and location can be observed. Lastly, the “Amsterdam-effect” proved insignificant.

## **9. Housing & Property Values 1 – Moderated by prof. dr. Ed Nozeman Room 5419.0119**

#### **David Altenburg**

*The effects of major infrastructural developments on nearby house prices: Evidence from the Netherlands.*

This paper analyzes to what extent major infrastructural developments affect surrounding house prices by analyzing eight dual carriageway projects from the Netherlands using residential transaction data from 2004 to 2021 in two hedonic price models, separating the effect from dual carriageway onramps and dual carriageways itself before, during, and after construction. Findings indicate that onramps have positive effects on house prices, that dual carriageways itself have negative effects on house prices, and that differences between newly constructed and redeveloped dual carriageways exist.

#### **Jos Koster**

*Proximity to Water and Residential Property Values: Evidence from The Netherlands.*

This paper studies the effect of a properties distance to water on house prices. Living nearby water brings aesthetic, recreational and health benefits. Policy makers can use the results to maximize their residents' well-being through spatial planning. A Pseudo-repeat sales model, using over 180.000 Dutch property transactions, is used to study the effects of properties distances to water. The main results conclude that, on average, properties near water (>25m) are priced up to 2.44% higher than properties farther away (+400m).

**Philibert Weenink***Local spatio-temporal regression kriging for property price predictions.*

This thesis accounts for spatio-temporal- dependence and heterogeneity in property price valuations by considering a geostatistical approach. In contrast to other applications, the considered methodology relies on a joint covariance structure that is based upon a dual structure variogram. The proposed methodology is tested upon an extensive property transaction dataset in North Carolina. Empirical results suggest that the use of space-time geostatistics indeed improves prediction results over traditional hedonic models.

**Hendrik Willem Ophoff***The emergence of foreign investors in residential real estate market and house price level association.*

The Dutch RE market noticed an increase in FDIRE. On national scale the concern grows among the Dutch on the foreign investor and their effect on price levels. Previous research has highlighted differences in pricing between investors on a national scale for commercial real estate. To explore these issues for the residential market, this paper studies the relationship between house price levels and the nationality of the investor in the Dutch residential market in the Randstad. This study shows that on a municipal level foreign investors pay more at acquisition but don't sell at a premium.

**Lars Groenewold***The pressures of inner-city development.*

Many scholars have researched the differences between greenfield and brownfield development and compared centralist to decentralist convictions in urban planning. Most studies hereby agree upon the advantages of inner-city development based on social and economic arguments. Nonetheless, it appears that this theoretical agreement has not settled in practice, as cases of growing urban sprawl are increasing. A wide variety of determinants of inner-city development are identified using a survival analysis, and their time impact is measured.

# Thematic Presentation Sessions - round 2

## 15:15 – 16:30 hours

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### 10. After the Car – Moderated by Jorn van der Scheer (OV Bureau Groningen Drenthe) Room 5412.0025

#### **Thijs Oost**

##### *How to make a car free neighbourhood work.*

When cars disappear from the streets in residential areas, there is more space for things like greenery, public transport, wider bicycle paths and better footpaths. Moreover, less car use also means fewer trips and more active mobility. Car-free neighbourhoods can contribute to more space for other uses and more active mobility with resulting health benefits. There are a number of factors that contribute to the success of car-free neighbourhoods, which are not only related to the design and the facilities of the neighbourhood itself, but also to the residents of the neighbourhood.

#### **Nikki Sweere**

##### *Improving the quality of stay: a transition towards a car-free city centre.*

This thesis aims to identify the factors that help challenge the existing regime of car dominant cities in the Netherlands. A conceptual framework that integrates the car-free city concept, transition theory and three dimensions 'people, planning and policy', will be used in a comparative case study of three Dutch cities. Hereby, the aim of this research is to both contribute to future policy and practises and theory in order to create more accessible and liveable cities.

#### **Jaimy Post**

##### *Cyclist and pedestrian perception in shared space.*

The thesis is about the perception of cyclists and pedestrians in shared space. It focusses on three locations in Groningen and two in Leeuwarden which reported to be either unpleasant to be in or perceived dangerous by the users. Using semi-structured interviews, cyclists and pedestrians were asked about characteristics of shared space and their contribution to perceived safety and satisfaction. This can help to understand what factors contribute to the reduced sense of safety and satisfaction in these areas. Although early results are already present, the full results are yet to be reported.

#### **Nigel Onwuachu**

##### *Travel via hub: an effect evaluation of the hub-concept in Groningen & Drenthe.*

Hubs are multimodal transportation nodes in Groningen & Drenthe. However, the familiarity of the concept is lacking and those in rural areas, for which the concept was introduced, have remained steadily low in patronage numbers of public transportation. Through mixed methodology a comparison will be drawn of the perceived accessibility of hubs between those who do regularly travel by bus and those who never do. The results will provide an understanding on what prevents those in rural areas of travelling by bus.

## **11. On the Move - Moderated by Tibor Rongen**

### **Room 5412.0028**

#### **Linus Piesch**

##### *Self-reported accessibility and acceptable travel times in the Netherlands.*

Recent research in transport geography suggests the existence of acceptable travel times as time tolerance thresholds that determine whether a person travels or not. By using latest self-reported survey data from the Netherlands, the aim of this thesis is to identify the variations in acceptable travel times across the following dimensions: purpose of trip, socioeconomic characteristics and spatial factors. The results could help to better target vulnerable groups and areas in accessibility-based planning and eventually foster social inclusion.

#### **Laura Fransen**

##### *The promise of cycling to reduce car mobility in the Netherlands.*

This research aims to understand the relationship between car mobility and cycling in the Netherlands. Moreover, it will investigate how the promotion of cycling can contribute to the reduction of car mobility, and how this can be fostered to ensure long-term results. Therefore, the main research question is: How can the increase in cycling's modal split contribute to the transition from car? The data is collected through statistical data, policy and document review, and interviews. The preliminary results illustrate that the reduction of car mobility using cycling is mostly possible in urban regions where activities are at max. 8 km. It is also expected that the contribution of cycling's modal split, not by itself, but with the combination of public transport and spatial design, will contribute to this reduction. Lastly, a combination of bicycle stimulation and car reduction promotional activities will enable this transition towards more sustainable mobility.

#### **Milan Noordveld**

##### *Shaping a sustainable shift; how planners and policymakers could influence the adoption and further integration of electric vehicles into cities.*

Amidst growing concerns about emissions and fuel prices, electric vehicles (EVs) are highly relevant today. Adoption and further integration of EVs can be influenced by urban planners and policy makers. Numerous authors have explored what this influence could entail, but a clear overview of policy measures and approaches has not been created yet. Through a systematic literature review, this study aimed to fill that gap. The result is a model of policy recommendations, ranging from steps related to charging infrastructure investment, to the promotion of social acceptance and embedding of EVs.

## **12. Generations YZ - Moderated by dr. Leonieke Bolderman**

### **Room 5412.0031**

#### **Tom Hermes**

##### *Factors influencing the Choice of Transport Mode among Students: a Case Study of students in the city of Groningen.*

This research looks at how students in Groningen travel to their university and focuses in particular on the mode of transport choice. This study examines the attitudinal factors, the built environment, and travel factors such as travel time and travel costs. The results can be used by the municipality to make travelling to the university safer and more pleasant for everyone by improving the built environment. The study also looks at the difference between

Dutch and international students. The results might lead to a necessary intervention to improve the life of international students

### **Chang You**

#### *How do international students perceive the connection between sense of place and loneliness?*

Loneliness is a big issue among international students. As both immigrants and students, they have to build local connections from the ground up. Loneliness as a result of lacking social interaction is suggested to be connected with sense of place, while sense of place is also affected by loneliness. This research explores the relationship between these two concepts through in-depth interviews among international students studying in Groningen with an aim to establish common themes and concepts between students and their experience of loneliness in relation to sense of place.

### **Jonas Kemmerling**

#### *Young Adults' Housing Tenure Choices after Leaving the Parental Home.*

I study the housing careers of young adults after leaving their parental home. Using data from the GSOEP, I follow home-leavers through their housing decisions and examine how these are influenced by individual, background, and contextual determinants. Investigating their pathways through four typologies of housing that are characterised by differentials in costs and permanence (renting, owning, sub-letting, or living in a dormitory) gives insights into the housing needs and preferences during early adulthood and how these are met by the housing markets in urban and rural areas.

## **13. Spatial Inequalities - Moderated by Jesse Wermelink (Twynstra Gudde) Room 5412.0035**

### **Bas Koopman**

#### *Developments and geographical inequalities in life expectancy in US states between 1999 to 2020.*

Life expectancy in the United States is stalling and even decreasing in the period 2014- to 2017. In the period 1999 to 2020 disparities in US mortality rates were increasing. However, not all states have the same developments in life expectancy. In the southeast and up northwards are relatively low values of life expectancy and in the north-central region and southwest relatively high values of life expectancy. This thesis aims to describe how US life expectancy has developed and which age groups and deaths causes contributed the most to developments in life expectancy. The developments in life expectancy are analyzed by using age- and cause-specific decomposition models.

### **Eleonore Witschaß**

#### *Everybody welcome? How popularity limits the access to public parks.*

Urban Environmental Injustice appears in public park as a reflection of societal issues, limiting the accessibility of green spaces for different social groups. Factors of park design, functionalities, and discourse impact the narrative and use of the park. Using a Feminist Political Ecology lens, my thesis seeks to unwrap the underlying structures in the contrasting cases of the Clamart-Park and the Kurpark in Lüneburg (GER) from a past and current perspective. Finally, it proposes an alternative to rethink parks as more inclusive meeting places based on ideas of communing.

### **Genghao Zhang**

*Geographical Proximity and Knowledge Diffusion: Evidence from Collaborative Innovation of AI Patents in Europe.*

This research examines how co-knowledge regarding AI technology development (AI TD) and applications (AI TA) is diffused between and within NUTS 2 regions during 1982-2020. We sorted and analysed 16,379 Artificial intelligence (AI) patents from the REGPAT database (202202). Performing Zero-inflated Negative Binomial Regressions, results find that co-knowledge regarding AI TD align with the hierarchical diffusion pattern, while that of AI TA indicates hierarchical and contagious patterns.

### **Mi Hyun Seong**

*An investigation of regional 'lock-ins' with an old industry and regional economic sustainability: Spatial analyses with GIS and econometrics in Geoje-Do, South Korea.*

This research investigates regional economic sustainability in a location where its economy is 'locked-in' with an old industry. Under the path dependence theory in evolutionary economic geography, the regional lock-in effects of shipbuilding industry are investigated in smaller spatial units in Geoje, South Korea. Using spatial analyses with GIS and econometrics, the statistically significant relationships are found between the industry and two key variables in each administrative division; diversifying economic structures is suggested for future policy attention.

## **14. Neighbourhoods / Local Planning**

**Moderated by dr. Christian Lamker / Rama Putra**  
**Room 5412.0039**

### **Benolia Adjei-Cudjoe**

*Beyond the Science: The role of Indigenous Planning in Ghana.*

The result of this study indicated that Indigenous planning is highly valued and, based on actual facts, has proven to be effective and should be integrated into the planning system of the country.

### **Gijs Wesselo**

*Rekindling momentum. How rejected major infrastructure projects regain political attention.*

A policy window involves the alignment of thoughts on problems and their logical solutions. To achieve this, policy entrepreneurs apply methods of persuasive storytelling. This research analyses the triggering moments which contribute to the revival of major infrastructure projects. A case study on the lobbying process behind the Dutch railway project the "Lelylijn" aims to unravel these triggering moments through examining documentary data from Dutch national politics and media sources. The strategic framing of external developments appears a dominant source of triggering moments.

### **Martijn Ras**

*Holwerd and its values: the incorporation of heritage values of cultural landscapes in bottom-up spatial developments.*

Bottom-up spatial developments are often praised for the incorporation of the values of the people instead of implementing the vision of the expert in a top-down fashion. However, the incorporation of heritage values in the development of cultural landscapes is also a matter of choice and consequently, power. This research looks at the case of Holwerd aan Zee. Through interviewing experts and a questionnaire among residents, different heritage narratives are

investigated. Furthermore, the aim is to gain insight in how possible dissonance between the different perspectives is dealt with.

#### **Jasmijn Tiemersma**

*Beyond direct availability: characteristics of housing vacancy chains explored.*

The housing crisis in the Netherlands asks for action. This research aims to gain insight in the Dutch housing market and especially into the indirect effects that are subsequently released after a family's move towards a direct available house. After all, their move enables other families indirect to move as well. Using register data, this research investigates how housing vacancy chains function at the market by analyzing its characteristics, such as the length of chains. The results can be used in decisions in what to build in the upcoming years to deal with the housing crisis.

### **15. Tourism - Moderated by dr. Peter Groot Room 5412.0040**

#### **Mark Pasma**

*Coping with overtourism: case studies across Europe.*

In 2017, a wave of anti-tourism protests addressed that policymakers need to take action. However, the COVID-19 pandemic showed the economic importance of the tourism industry. Currently, some destinations decided to act accordingly, or failed to do so. My Thesis addresses case studies across Europe that treat overtourism differently. The impact of tourism within these case studies are analysed using the TALC model and Doxey's Irritation Index. Whereas some destinations still want to increase the number of tourists, others put strict regulations on the number of tourist arrivals.

#### **Alizé Kock**

*Community-based tourism on Bonaire: Is it a realistic possibility?*

In this thesis, the enabling and constraining factors for community-based tourism (CBT) on Bonaire, highly dependent on tourism, are explored. Through CBT, an inherently bottom-up approach, incomes from tourism remain on the island as an investment in its people and the island. Whether there is an interest in CBT by Bonairians and those involved in the tourism sector will be examined, as well as what would be needed to implement CBT and what could threaten its implementation. This will be done through reviews of CBT in other places and conversations with relevant Bonairian stakeholders.

#### **Yuxuan Zhu**

*Tourism, Heritage and Identity: A Study of Ethnic Minority Settlements in China.*

China is a multi-ethnic country with 56 ethnic groups, providing diverse opportunities to travel to traditional ethnic minority settlements. Due to the tourism development, the historical environments of these destinations have been or are being changed. These environmental changes might harm local heritages and result in the loss of place identity for indigenous people. Through online semi-structured interviews, this study explores how indigenous people perceive the place identity in their settlements and how their perceptions change according to the built environment changes.

### **Spyridon Melissourgos**

*Assessing the effect of proximity to tourist attraction sites on Airbnb listings' nightly rates: Evidence from Athens, Greece.*

Motivated by the significant contribution of tourism activity and Airbnb expansion to the Greek economy, this study examines the impact of proximity to tourist attractions on Airbnb nightly rates in Athens. Established works find that location, host & property characteristics, services, and ratings influence nightly rates. Employing hedonic models, we find that nightly rates increase as listings' distance to attractions decreases. This effect is meaningful for Airbnb owners' and investors' decisions, as well as for the government. Future research may consider seasonal differences.

## **16. Benefiting of the Energy Transitions? - Moderated by dr. Ethemcan Turhan Room 5419.0008**

### **Bas Donkers**

*Energy poverty in the Netherlands: policy instruments for municipalities .*

Households who are struggling to pay their energy bills and/or live in energy inefficient housing are at risk of becoming energy poor. Dutch government has set goals to tackle energy poverty to protect vulnerable groups. The aim of this research is to identify which policy instruments are available to Dutch municipalities to address energy poverty, how they are currently used and how their effectiveness is perceived and assessed by the municipalities. Interviews were conducted with aldermen and policy makers to gain insight in local policy choices that aim to address this current challenge.

### **Anton Korpela**

*Finland's push for energy independence through geothermal energy and heat pumps: The impact of public perception and shifting energy demands.*

The changing geopolitical climate in Finland following the recent invasion of Ukraine and Finland's application to NATO has implications on Finland's energy independence and energy sovereignty due to historical dependence on Russian gas and oil. Geothermal energy can be used as a potential renewable source to contribute to Finland's energy transition. The main question is "How does the current public perception of geothermal energy in Finland influence its demand and growth as a renewable energy source from the perspectives of stakeholders in the energy industry?".

### **Daan Schipper**

*The capitalization of energy labels in the Netherlands: A comparison between housing types.*

The extent to which energy labels are capitalized into housing value (in the form of WOZ-value) is analyzed, and differences in capitalization between housing types are examined. It is concluded that residences with energy label E or lower are assessed at a WOZ-value of approximately -4.1% to -5.5% lower than residences with an A energy label. Flats and apartments are the only housing type for which the results show interaction effects between housing type and energy label. The results could indicate that flats and apartments are more vulnerable to energy poverty, but more research is needed.

### **Jort de Vries**

*Where the wind blows: knowledge uptake in Dutch offshore wind policy.*

With increasing international renewable energy goals and a desire to reduce dependency of fossil fuels from unstable areas, NL increasingly plans its renewable energy production on the North Sea. However, limited understanding of the physical North Sea system, and the results

of this massive intervention means that the rapid outrol of Offshore Wind Farms is often suboptimally informed. Knowledge is therefore lacking, and very dynamic since many researchers aim to fill the gap. The uptake of this constant stream of knowledge in to marines spatial planning policy is limitedly studied.

## **17. Property Markets - Moderated by dr. Mark van Duijn Room 5419.0013**

### **Mohammad Hassan Taheri Motlagh**

*The impact of the COVID-19 pandemic on hotel transaction prices in key European cities.*

This study investigates the impact of the COVID on hotel transaction prices in major cities in Europe. The article also studies this effect based on specific city, or specific city level in terms of annual number of tourists. Finally, the study detects whether there is any heterogeneity in hotel values between branded and independent hotels. During the COVID decreases the prices by 6.8% including city level variables, and by 0.5% including city variables. Finally, both models including city level, and city variables do not differ significantly between branded and independent hotels.

### **Geoffrey Penders**

*The willingness of investors to pay for offices within a Dutch owners association (VvE).*

The purpose of this research is to determine how an owners association affect the investment value of office real estate in the Netherlands. The hedonic pricing method was applied to 283 office transactions. According to the findings of this study, investors pay 11.84% less for offices within an owners association when compared to single-owned office buildings. Furthermore, the hedonic regression analysis found that foreign investors are less willing to pay for offices within an owners association than domestic investors.

### **Nynke Hoomans**

*The relationship between the attractiveness of retail areas and their performance.*

It is important to understand the impact of changing retail circumstances on the performance of shopping centers. According to Reilly's law of retail gravitation, attractiveness is determined by only size and distance of the shopping center. To investigate this, the relationship between attractiveness indicators of a shopping center and their performance is examined. The results show that size and distance explain 41 percent of footfall, indicating that Reilly's law does not hold for this sample. Location related variables add a significant amount to explanatory power.

### **Malou van de Kloek**

*The preferred division of concentration and communication locations at the work floor: users' perspective.*

Finding the balance between communication and concentration on the work floor is a complex problem. This study is a quantitative study where a survey is conducted among the employees of a commercial real estate organization. First an index of the communication and concentration locations is created, together with linear regression to search for the relationship between the employee characteristics and the preferred workplace locations. It turned out that the division of concentration locations was more prominent. However, the linear regression results turned out not to be significant.

**David Valens**

*The impact of COVID-19 on European commercial real estate.*

My thesis empirically analyzes the geographical exposure of real estate portfolios to Covid-19, by examining the effect on abnormal returns. Sector differences and the role of government non-pharmaceutical interventions (NPIs) are also explored. The main result finds that higher asset exposure decreases abnormal returns. Hotel and retail assets are most negatively impacted, whereas industrial and healthcare assets are positively impacted. NPIs ameliorate the negative effect. The analysis gives insight into the risks posed by pandemics and highlights the positive role of government policy.

## **18. Housing & Property Values 2 - Moderated by prof. dr. Ed Nozeman Room 5419.0119**

**Pieter Reitsma**

*Buy up protection in Rotterdam: stimulating first-time-buyers or bullying investors?*

The buy up protection is a recent phenomenon in the Netherlands. This regulation gives municipalities the power to prohibit buy-to-let practices. It is a drastic limitation on property rights which should provide first-time buyers and young households a higher chance to buy homes instead of buy-to-let investors. Rotterdam is the first municipality to introduce the buy up regulation in selected neighbourhoods. This study researches the effects of the new policy on home prices and the trading volume of homes in Rotterdam using a difference in difference model.

**Martine Verwijs**

*The relationship between vacant retail premises and transformations: Retail areas in a downward spiral.*

The research question of this thesis is what the impact is of retail transformations on the likelihood of vacant retail premises in the Netherlands. The high rise of e-commerce is one of the most important factors for influencing retail vacancy. The outcomes showed that the odds of a store becoming vacant slightly increases as the number of realized transformations in a neighbourhood increases. It is also found that the effect of realized transformations on retail vacancy is negative in high urbanity level areas and positive in not urban areas.

**Shawn Kuijpers**

*The (in)equality of housing affordability within the Netherlands.*

This paper examines the relevance of the consumption-adjusted housing affordability approach to unravel potential growing inequalities for underprivileged households within the Netherlands, using WoON data of 2009-2018. Findings suggest an overall decrease in housing affordability burdens for the sample over the years, as housing prices declined in the period after the GFC. However, simultaneously results indicate a rising inequality between least and most affordability burdened sample groups. Therefore, the consumption-adjusted approach is potentially useful for policy on regional levels.

**Sven Bouwmeester**

*How to understand the relationship between tenant satisfaction and financial performance of Dutch Real estate.*

This study investigates whether tenant satisfaction improves investment returns. After studying 110 cases, it appears that the coefficient for tenant satisfaction is insignificant. However, we do conclude, based on a paired sample T-test, that dissatisfied tenants leave earlier than other tenants.

**Bram Treffers***Real estate investments in the Dutch healthcare sector.*

The healthcare sector in the Netherlands is facing a large investment challenge in the coming years. Up to € 6 billion of investments per year will be necessary, while many do not have the financial opportunities to make these investments. The income of these healthcare firms is dependent on four healthcare laws in the Netherlands, each with a different tariffs and budgets that are passed through to the healthcare providers. In this research we analyze the effect of the different healthcare laws on the amount of investments that healthcare firms can make.

## Poster Presentations

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### **Afwan Prianggoro**

#### *Examining the role of Land Bank Institution in Indonesia's Spatial Planning Practice.*

A new institution established by Indonesia's government called the "Land Bank" aims to solve land and spatial planning issues. In fact, land and spatial planning are under the authority of the National Land Agency. As a new institution, land bank would likely exacerbate the complexity of spatial planning practice. The big question is, does Indonesia really need a land bank. This study aims to identify the background of establishing a land bank. Then, to explain the operationalization of a land bank in Indonesia. After that, to explore the land bank's role in Indonesia's spatial practice.

### **Allison Hoeft**

#### *Resolving Conflicts between Fish Farmers and Otters (*Lutra lutra*) in Lower Saxon.*

As the Eurasian otter (*Lutra lutra*) population spreads across the German state of Lower Saxony, conflicts between inland fisheries and otters have become increasingly common due to the damage otters inflict on fish stocks. Therefore, this research presents an interdisciplinary approach to wildlife management to balance social, economic, and ecological dimensions in an effort to mitigate future conflicts. Ergo, a joint response between the government, conservationists, and inland fisheries is necessary to protect both otters and the livelihoods of inland fishermen.

### **Anna Harbers**

#### *Linking health inequalities of outcomes and opportunities: The association between socioeconomic status, Health-Related Quality of Life and Health care utilisation of Q fever patients with long-term health symptoms.*

More than ten years after the Dutch Q-fever epidemic (2007-2010), approximately twenty per cent of Q-fever patients still experience health symptoms. Understanding the health-related quality of life (HRQoL) of socioeconomic (SES) groups provides insight into health inequalities following Q-fever. This study assessed the association between SES and HRQoL via health care use. Although the results did not show that health care use mediated the association between SES and HRQoL, the results indicated that Q-fever patients with high SES had a higher HRQoL than patients with lower SES.

### **Anton Grol**

#### *The Societal Impact of Energy Poverty.*

More than 550.000 households are experiencing energy poverty in The Netherlands and with rising energy prices it is probably even more. These people often cannot afford or have no access to an adequate level of thermal comfort within their homes. Energy poverty can lead to problems such as: social exclusion, (mental) health problems and unemployment. To gain more insight in the societal impact of energy poverty, I researched how the different problems caused by energy poverty are relating to each other and what the consequences are for the society as a whole. Here, I focused on the municipality of Groningen.

### **Charissa Andringa**

#### *Property of the future – A research into factors influencing the value of virtual land.*

Imagine a virtual world where people live, work, shop, and interact with others - all from the comfort of their couch in the physical world. Such virtual worlds are referred to as the

metaverse. Virtual worlds are in continuous development, worlds so different from the one we know, but also so similar. Like our physical world, these worlds have their own economy, facilities and functions. In these worlds land can be bought: virtual land. These worlds and their economies are still little explored, but they offer many exciting possibilities and are therefore worth exploring. And if there are comparisons to be made, it might also be useful to apply existing economic theories to these worlds.

### **Coen Keijzer**

#### *The Quest for Spatial Quality.*

Spatial quality has returned on the political agenda! However, its quest is not new to Dutch national spatial planning. It was already on the agenda during the 1980s starting with the Fourth Policy Document. The meaning of spatial quality cannot be found by looking it up in a dictionary, instead it is constructed socially in the representations and written publications of the national government. This conceptualization within national planning policy, as well as its position and use, has developed over the years. This thesis explores this development by means of a discourse analysis.

### **Daniel Rösler**

#### *A test of the status anxiety hypothesis of social inequality applied on less-affluent European countries.*

This thesis is a test of the status anxiety hypothesis applied on less-affluent countries. The hypothesis suggests that people living in economically more unequal countries would experience higher levels of status anxiety – a feeling of inferiority resulting from social comparison. As this relationship was originally stated for richer countries only, former research has secluded countries with lower living standards from their analyses. This thesis examines the limitations of the hypothesis by analyzing a European sample of the four countries Albania, Montenegro, North Macedonia and Serbia.

### **Derek Alford**

#### *The role of citizens in the “smart” transformations of our cities: A case study of three major European cities and how participatory governance is the way forward.*

Smart cities present a platform for innovation, co-creation, sharing, and participation that can transition our cities towards sustainable and equitable futures. But to do this, we must ask who is involved, why are they involved, and how they can become involved within our socio-political systems. We must provide individuals with spaces to participate within governance and ensure that all voices and ideas are heard. This paper analyzes three cities; Barcelona, Amsterdam, and Helsinki, to study three distinct smart city platforms aimed at encouraging and fostering public participation.

### **Elias Shulika**

#### *The Effect of Accessibility to Green Areas on the Feelings of Loneliness.*

Visiting and living near green areas has been repeatedly shown to be beneficial for human wellbeing. One of the benefits they provide is their ability to provide relief from loneliness, which is a possible predecessor to various mental and physical health problems. There are two suggested mechanism behind the relationship between green areas and loneliness: opportunities for social interactions and solace, or relief from unfulfilled social needs. In my thesis I investigate whether the latter mechanism, solace, is indeed taking place.

### **Els Dijkstra**

#### *Strengthening spatial quality in regional flood risk management.*

Currently water management is shifting from a traditional approach towards a more integrated approach. Consequently, spatial quality is receiving more attention in water management, especially in primary flood defenses. Regional flood defenses have received less attention. This study discusses spatial quality and policy instruments that are used to increase spatial quality in practice. Two best practice cases are analyzed. Thereby, this study aims to provide insight into the current status of spatial quality in regional flood risk management along with lessons for future flood risk projects.

### **Emiel Blauw**

#### *The Influence of Climate Adaptive Agriculture on Water Management in Urban Areas.*

### **Enrique Pérez Miguel**

#### *The role of social networks on mental health. An empirical study of the population over 50 years old in Spain.*

Among the social determinants of mental health, the social networks of individuals have been found to have an important effect, especially relevant at older ages. However, little is known about which aspect of the social networks (structure, interactions, or quality) is more critical for this link and how this relationship is shaped by sociodemographic characteristics in the Spanish context. This study attempts to address this gap in the literature, with a special focus on the structure of the network, using the Convoy Model of Social Relationships with a sample of Spanish population aged 50 and older.

### **Erik Zuidema**

#### *The role of geothermal energy in the energy transition of Fryslân, the Netherlands.*

Due to climate change, the world must adapt from fossil fuel based energy to sustainable methods. In the province Fryslân in the Netherlands, the focus is on solar and wind energy. While geothermal is used for heating, this research attempts to find the potential for geothermal energy extraction in Fryslan.

### **Franziska Altenbach**

#### *Energy storage in a Positive Energy District – Conditions for the use of Pumped Hydro Energy Storage in Austria.*

One highly important factor for Positive Energy Districts (PEDs) is the storage of surplus energy. This is because PEDs produce and consume exclusively renewable energy, which is compared to fossil fuels less reliable due to natural fluctuations. However, the literature is lacking in information about Energy Storage Solution (EES) in PEDs, in particular there is no information about integrating Pumped Hydro Energy Storage (PHES) in PEDs. The aim of this Master thesis is therefore to elaborate which conditions are important for the use of PHES as ESS in PEDs.

### **Gerrit Joustra**

#### *Addressing institutional logics in infrastructure project: addressing the case of Zeesluis IJmuiden.*

In this study I research the reaction of project managers to conflicts at the Zeesluis IJmuiden project. The research focuses on the identification of institutional logics in situations of conflict. The aim of this study is to identify first, the theory and main points from literature about institutional logics. Second, identify the use of institutional logics by project/program

managers in a project, and third to deliver possible incentives and disincentives for handling differences in institutional logics.

### **Helena Burhorn**

#### *Integrating Nature-Based Solutions Into Flood Risk Management.*

Nature-based solutions are equally described as promising as well as challenging. NBS are capable to mitigate and adapt to climate change effects while simultaneously protecting biodiversity, building capacity and fostering resilience. When NBS are embedded in resilience, they have the potential to be not just maintaining or increasing nature and biodiversity but also contributing to flood protection. Aim is to explore the opportunities and challenge of NBS and those insights are supposed to answer the question if the integration of NBS into flood risk management could enhance flood resilience.

### **Jan Vriens**

#### *A quantitative study on the effects of socioeconomic status on nutritional status in Sub-Saharan Africa.*

This thesis aims to analyse whether the established notion that there is a robust, linear relationship between socioeconomic status and nutritional status also holds up in Sub-Saharan African countries that are suffering from a double burden of malnutrition. It uses data from the Demographic and Health Surveys to run an OLS regression that empirically tests this relationship. Results of this regression analysis show that while the relationship is linear, the direction of the relationship is in the opposite direction from the relationship in the countries of the Global North.

### **Jorn Kremers**

#### *Dutch energy transition: Scenarios to meet the future electricity demand in the Netherlands with the possible use of nuclear energy.*

The increased urgency of dealing with climate change has sparked renewed interest in the nuclear energy option. Nuclear power can be seen as a good option in the energy transition, because with the generation of nuclear energy, there is zero emission of greenhouse gases. The aim of this explorative study is to investigate whether or not nuclear energy is a useful energy source on the long term in the Netherlands, and to investigate which possible scenarios are available to meet the future electricity demand in the Netherlands with a combination of sustainable sources.

### **Jos Spijkerman**

#### *Seeing like a wolf: control, care and conviviality in multispecies planning.*

What should we do now that the wolf is back? In this thesis, I set out to research all the different Dutch responses to the comeback of the wolf. Building on the argument spatial planning needs to move beyond human exceptionalism, I inquire how human and non-human citizens of the Netherlands can learn to co-exist. By operationalizing the concepts of control, care and conviviality, I analyze the ecological political discourse surrounding wolf 'management', nature development and nature conservation more broadly.

### **Karlijn Oosterloo**

#### *Working in a female-only coworking space.*

Whereas in the past, offices were required to accommodate employees with carrying out business activities, the use of mobile technology and changing attitudes towards work made it possible to work anywhere, at any time. A shift towards working environment preferences led to a new and sparsely researched concept of female-only coworking spaces. This

explorative and qualitative study is aimed to contribute to further knowledge on the use of female-only coworking locations. It will seek for circumstances under which users and providers choose a female-only location to carry out their business.

### **Laurens Brugma**

#### *The effects of changes of the student loan on the spatial mobility of students.*

This thesis explores the effect of the 'sociaal leenstelsel' in 2015 on the spatial mobility of Dutch students. This research firstly explains the changes of the student grant system in 2015, secondly the components of spatial mobility of students are explored. Where after the main issue of the thesis is addressed; "To what extent has spatial mobility of students altered after the implementation of the 'sociaal leenstelsel' in 2015?" This study uses Dutch HBO student monitor data, offering cross-sectional data about the career paths and mobility of graduated Dutch applied university students.

### **Lea Meyer**

#### *Public Profile Analysis as a Measurement Tool for the Acceptance of Nature-based Coastal Protection Approaches. A Case Study on the Coastal Zones in the Province of Groningen, The Netherlands.*

Over the last two decades, the concept of "Nature-based solutions" (NbS) has emerged to enable nature to protect coastlines from erosion. While the physical scope of this concept has been researched, there is still a knowledge gap regarding its public acceptance. Based on the importance of water in Dutch history and the change in water management in the 1980s, I hypothesise that the Dutch perspective reflects this in terms of values and norms and thus a positive tendency for NbS can be observed. The results will consist of quantitative data on public opinion in the province of Groningen.

### **Lieke Eegdeman**

#### *Geothermal energy as part of the energy transition in the Netherlands - Policy instruments that stimulate the exploitation of geothermal energy: lessons for the Dutch energy regions.*

Geothermal energy as an environmentally-friendly heat source has the potential to make a significant contribution to the energy transition in the Netherlands. It can meet heating, cooling and electricity demands for the future. In the body of literature regarding energy transition towards renewables, geothermal energy does not receive much attention. In practice, geothermal energy use is increasing, but not yet widely used in the Netherlands. To accelerate the shift towards the use of geothermal energy in its full potential, it is necessary to create a conducive governance and policy context. In this study, the geographical area of RES region Rotterdam-Den Haag is scrutinized as a case. It is the region in the Netherlands where most geothermal energy projects are currently planned. From a governance and instrumental perspective it is researched how the contemporary governance setting and policy instruments influence the planning and implementation of geothermal projects, with the aim to learn from the insights. One insight is that established within the paradigm of the heat transition, geothermal projects are highly subject to multi-level interactions. Though, the decisive decision-making lies with the national government and geothermal development is therefore not -yet- that decentralized. Based on this study several recommendations are put forward, such as how a mix of 1) legislative/regulatory instruments, 2) economic/fiscal instruments, 3) agreement-based instruments, 4) information/communication based instruments and 5) knowledge and innovation instruments, enhance geothermal development.

**Maike Buser***Planning with uncertainties. Is that a skill of a local policymaker?*

The field of urban logistics can be characterized as dynamic and complex. With a continuous, grow in e-commerce, the demand and supply for last-mile parcel delivery increases placing the urban environment under pressure. With the EU agreement on city logistics becoming CO2-free in 2030, local policymakers are in charge to come up with policy measures which increase the sustainability of city logistics and at the same time enhance the quality of the urban environment. A difficult task that is surrounded with uncertainties. The question arises if local policymakers understand the possible effect uncertainties can have on their policy plan and how they respond to these uncertainties. Therefore the aim of this study is to answer the question: 'How do local policy-makers in European cities, cope with and/or make use of the uncertainties of long-term planning for sustainable urban logistics?'

**Marit Minkes***Preventing lock-in situations in citizens-initiated infrastructure projects.*

Bottom-up initiatives are on the rise and the participation society is highly supported by governmental institutions. In the village of Holwerd the citizens want to create a dike breach to increase the liveability and attractiveness of the region. This thesis will elaborate on preventing lock-in situations and the best way of coping with challenging citizens' initiatives. Compared to regular citizens initiatives to get successful it is useful in large-scale initiatives to cooperate between the initiators and the governmental organizations.

**Marlies Rijkeboer***Fostering innovation in Dutch construction projects.*

This thesis focuses on fostering innovation in Dutch construction projects. To date, it remains unclear which structural mechanisms are effective in achieving innovation outcomes. Due to environmental concerns, specific attention is drawn to a more circular construction sector. For this study, four successful circular projects are studied, each representing different public private collaboration structures. Preliminary results show that trust, heterogeneity in expertise and early involvement of private parties combined with a strong focus on network activities, are crucial.

**Mireia Moragues Pitarch***Conserving ecosystems to increase coastal resilience. Exploring Ecosystem-Based Management with the case of the Valencian Community, Spain.*

Coastal resilience is declining globally due to several stresses. Specifically in the Valencian Community, tourism and coastal urbanization have accelerated the degradation of coastal and marine ecosystems which are key to maintaining resilient coastal communities and economies. This thesis examines how an ecosystem-based management can improve coastal resilience by considering the ecosystem services, acknowledging human and ecosystem connections and making use of scientific knowledge, integration principles and adaptive management in an uncertain and complex world.

**Nelly Reckhaus***The ongoing conflict between the offshore wind energy and fishing industry in the North Sea - How to fairly manage and distribute the space of the German Exclusive Economic Zone.*

Human activities in the German North Sea are increasing, which leads to conflicts between different interests and sectors. The expansion of offshore wind farms, to reach the desired goal of energy transition, results in less space for other activities such as fishing. This study focuses therefore, on the conflict between the fishing and the wind energy industry and aims

to find an approach to minimize this conflict. At the end of the study, recommendations will be drawn about how to improve the relationship between these sectors and external institutions which can influence their coexistence.

### **Nils Alexander Riedel**

*Using renewable energies in the corporate environment: An investigation of the potentials and the barriers for the corporate use of photovoltaic systems in Germany using the example of Osthaus & Beckert GmbH.*

German industrial companies see their international competitiveness weakened due to the high cost of electricity. In this study, the example of Osthaus & Beckert GmbH - an industrial company from Lower Saxony, Germany - is used to investigate the sustainability potentials of a company-owned photovoltaic system and which possible barriers exist that hinder the implementation.

### **Novi Asti Lalasati**

*Sustainable sanitation on small island cities (Case study: Tanjungpinang and Batam, Indonesia).*

Urban planning must take into account the environmental capacity to sustain key resources, one of which is fresh water. In order to minimize the possibility of groundwater contamination in small island cities, the management of domestic wastewater is crucial. Efforts to achieve sustainable sanitation on small islands can be viewed through the lens of the various stakeholders and their respective interests.

### **Robert den Boer**

*Living environmentally sustainable.*

This research is an exploration into the factors which help to stimulate environmentally friendly collaborative self-build housing-projects as well as how the mutual gains approach could help facilitating collaboration between the municipal actors and the collaborative self-build housing initiators to reach both goals: increased environmental sustainability for the area and high-quality living space for the future inhabitants.

### **Sam van Nieuwkuijk**

*The effects of intersection design on safety perceptions for Dutch cyclists.*

This study examines the role of intersection design on perceptions of safety for Dutch bicyclists. First the research defines its types of intersections in the built-up environment in the Netherlands. Perceptions of safety based on an online questionnaire are examined in relation to these types of intersections. In the second part the role of individual intersection characteristics is examined through regression analysis. The aim is to gain insights into what types of intersections are perceived as safe.

### **Simon Pot**

*Collaboration within infrastructure project: What lessons can be drawn from the collaboration between the project organisation and public stakeholders?*

The concepts of partnering and collaboration have gained an increasing importance in infrastructure projects. Despite a growing amount of literature on the concepts of partnering and collaboration, knowledge on public-public partnerships is still limited. This research will focus on the collaboration between the project organization of Dutch infrastructure projects and the societal environment (i.e. municipalities and provinces). The projects of Aanpak Ring Zuid Groningen and the Afsluitdijk will be used as case studies and will be studied by conducting semi-structured interviews.

**Stijn Wolfkamp***Stimulating the implementation of urban Nature-Based Solutions.*

Cities are facing numerous environmental- and societal challenges. Nature-Based Solutions (NBS) use nature as multifunctional interventions, addressing environmental, economic, and social sustainability simultaneously. Despite its large potentials, several barriers are hampering the implementation of NBS in cities. Therefore, this study provides new insights about the main conditions that stimulate the implementation of NBS. From both a literature study and a case study, it appears that political, institutional, and knowledge-related conditions are important to the implementation of NBS.

**Tamilwai Kolowa***Association of informality and sprawl in rapidly growing African cities.*

Cities in Africa have been described as a driver of economic development but also as disconnected, thus constraining their potential to reap agglomeration benefits. One of the urban expansion phenomena associated with inefficiency of urban form is informal sprawl. To find empirical evidence for the question, whether informal areas contribute more to sprawl than formal areas in growing African cities, this study will focus on the street accessibility dimension of sprawl. Connectivity metrics of urban locations will be used to compare unplanned and planned areas in Tanzanian secondary cities.

**Tarnim Hassan***Doughnut Thinking in Spatial Planning: Assessing the 'Suikerzijde Noord' project (Groningen, the Netherlands).*

The main concept used is Doughnut Economics of Kate Raworth. This discourse uses elements of circular society/development theories. However, practical applications in the local setting are scarce. In this thesis an assessment tool is developed in order to assess local urban developments using Doughnut 'Thinking' as a basis. As a case, the Suikerzijde Noord will be used to put this tool to practice.

**Tess ten Have***Understanding the barriers to connecting to heat networks as perceived by homeowners and how to overcome them.*

This thesis aims to answer the following research question: "Which barriers influence the preparedness of homeowners to connect to a heat network and what instruments may support homeowners to overcome the barriers?" To gain a better understanding of these perceived barriers and to be able to identify effective instruments, the influence of one's personal values is included in the study. To be able to answer the research question, a combination of surveys and in-depth expert interviews is used. These methods are applied to the specific case of homeowners in Groningen, the Netherlands.

**Thom Horlings***Developing a framework for the municipality of Alkmaar to translate the findings of POCITYF in an effective climate vision for 2050.*

In my research I will focus on the European pilot project POCITYF which is currently running in Alkmaar. I will analyse theory and policy document to see what the potential impact of this project is on the long-term planning approach of the city, and how the project's findings can be used to be replicated in other cities.

**Tim van Beers***The sale of social housing: Impacts and trends in the province of Groningen.*

This thesis researches the housing market in Groningen using a dataset containing all private and social housing sales during the 2009-2018 period. The research focuses on the impacts of the sale of social housing units, the trends in the market for starters and the difference between rural and urban regions. The findings show that starters have been crowded out of the housing market in both private and social housing sales as the amount of sales has also grown substantially.

**Tom Concannon***Addressing Car Dependency in Galway, Ireland.*

The societal reliance on cars is causing debilitating problems for the environment and mobility in cities worldwide. This begs the question of how cities should plan their transport networks for the future. This thesis explores the attitudes towards car use in the city of Galway, Ireland. Galway is an interesting case study as it continuously struggles to implement long established transport infrastructure projects. This study aims to understand how Galwegians choose to travel, what influences their choice to drive or not and how policy makers believe they should respond to these findings.

**Yannik Heisel-Sure***How to protect the Great Barrier Reef? - A possible shift towards more integrated land-sea planning.*

The Australian Great Barrier Reef is declining and is mostly threatened by climate change, land-based run-offs, coastal development and remaining fishing activities. This study focuses on land-based run-offs as one of these stressors. It will be investigated how land-based threats can be possibly minimized and be better integrated into future coral reef conservation management. The results should help decision-makers worldwide to improve the protection of coral reefs. However, it is expected that land-sea planning alone will not be enough to save the Great Barrier Reef.

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